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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,163	12/31/2003	Anjing Lou	C-567	1562

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Sun Chemical Corporation
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EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/751,163	LOU ET AL.	
	Examiner	Art Unit	
	Callie E. Shosho	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/21/05&3/12/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 5, 10, 13, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Leenders et al. (U.S. 6,890,584) taken in view of the evidence given in Miller (U.S. 5,352,282).

Leenders et al. disclose aqueous flexographic ink comprising styrene-acrylic copolymer, pigment including phthalocyanine pigment, sorbitol, and plasticizer. It is noted that the pigment includes that known under the tradename Blue B2G which is well known, as evidenced by Miller, as Pigment Blue 15:3. There is also disclosed method of adding styrene-acrylic acid and plasticizer to the ink (col.1, line 35, col. 8, lines 19-24, col.9, lines 16-17, col.12, line 35, col.13, lines 3-5, and col.21, lines 27-31). Given that Leenders et al. disclose ink as presently claimed including plasticizer and styrene-acrylic copolymer as presently claimed, it is clear that adding the plasticizer and the styrene-acrylic copolymer to the ink would inherently result in improvement of print gloss including on rough surfaces as presently claimed.

In light of the above, it is clear that Leenders et al. anticipate the present claims.

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3. Claims 1-3 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 874030.

EP 874030 discloses aqueous printing composition comprising styrene-acrylate emulsion comprising 30-60% solids, pigment including Pigment Black 7, and plasticizer (page 2, lines 3-4, 39-43, and 51-54 and page 3, lines 28-29 and 33). Attention is drawn to page 8, lines 40-47 which discloses composition comprising 5-20% styrene-acrylate emulsion, carbon black, and 0-10% plasticizer.

While there is no disclosure that the printing composition is an aqueous flexographic printing ink as presently claimed, applicants attention is drawn to MPEP 2111.02 which states that "if the body of a claim fully and intrinsically sets forth all the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction". Further, MPEP 2111.02 states that statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the purpose or intended use results in a structural difference between the claimed invention and the prior art. Only if such structural difference exists, does the recitation serve to limit the claim. If the prior art structure is capable of performing the intended use, then it meets the claim.

It is the examiner's position that the preamble does not state any distinct definition of any of the claimed invention's limitations and further that the purpose or intended use, i.e. aqueous flexographic printing ink, recited in the present claims does not result in a structural difference between the presently claimed invention and the prior art composition and further that the prior

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art structure which is a composition identical to that set forth in the present claims is capable of performing the recited purpose or intended use.

In light of the above, it is clear that EP 874030 anticipates the present claims.

4. Claims 1-3, 5, and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Sano '298 (U.S. 6,043,298).

Sano '298 discloses ink comprising Pigment Yellow 74, styrene-acrylic acid copolymer, and 0.1-40% sorbitol (col.1, lines 5-8, col.2, lines 46-48, and col.3, lines 476 and 62-64).

While there is no disclosure that the printing composition is an aqueous flexographic printing ink as presently claimed, applicants attention is drawn to MPEP 2111.02 which states that "if the body of a claim fully and intrinsically sets forth all the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction". Further, MPEP 2111.02 states that statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the purpose or intended use results in a structural difference between the claimed invention and the prior art. Only if such structural difference exists, does the recitation serve to limit the claim. If the prior art structure is capable of performing the intended use, then it meets the claim.

It is the examiner's position that the preamble does not state any distinct definition of any of the claimed invention's limitations and further that the purpose or intended use, i.e. aqueous flexographic printing ink, recited in the present claims does not result in a structural difference

between the presently claimed invention and the prior art composition and further that the prior art structure which is a composition identical to that set forth in the present claims is capable of performing the recited purpose or intended use.

In light of the above, it is clear that Sano '298 anticipates the present claims.

5. Claims 1-2, 7, 10, 15, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Sulzberg (U.S. 4,173,554).

Sulzberg disclose aqueous flexographic ink comprising pigment such as phthalocyanine blue, lithol rubine, and carbon black, styrene-acrylic copolymer, and plasticizer. There is also disclosed method of improving gloss comprising adding to the ink the styrene-acrylic acid and plasticizer wherein improvement is achieved in gloss including when printing on rough surface (col.1, lines 5-7 and col.2, lines 29-33, 39-47, 49-50, 54-56, and 54-57).

In light of the above, it is clear that Sulzberg anticipate the present claims.

6. Claims 1-3, 10, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Nigam et al. (U.S. 6,596,805).

Nigam et al. disclose aqueous composition including aqueous flexographic ink comprising pigment, styrene-acrylic copolymer, and plasticizer wherein the pigment includes Pigment Yellow 1 and 3, Pigment Red 2, 17, and 22, Pigment Blue 15:1, 15:2. and 15:3, etc. There is also disclosed method of adding the plasticizer and styrene-acrylic acid to the ink (col.1, lines 9-12, col.2, lines 47-48, col.7, lines 16-35, col.8, line 6, and col.9, lines 19 and 32-42). Given that Nigam et al. disclose ink as presently claimed including plasticizer and styrene-

acrylic copolymer as presently claimed, it is clear that adding the plasticizer and the styrene-acrylic copolymer to the ink would inherently result in improvement of print gloss including on rough surfaces as presently claimed.

In light of the above, it is clear that Nigam et al. anticipate the present claims.

7. Claims 1-4, 10-12, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Nigam et al. (U.S. 6,596,805).

Nigam et al. disclose aqueous composition including aqueous flexographic ink comprising pigment, styrene-acrylic copolymer, and plasticizer wherein the pigment includes Pigment Yellow 1 and 3, Pigment Red 2, 17, and 22, Pigment Blue 15:1, 15:2, and 15:3, etc. There is also disclosed method of adding the plasticizer and styrene-acrylic acid to the ink (col.1, lines 9-12, col.2, lines 47-48, col.7, lines 16-35, col.8, line 6, and col.9, lines 19 and 32-42). Given that Nigam et al. disclose ink as presently claimed including plasticizer and styrene-acrylic copolymer as presently claimed, it is clear that adding the plasticizer and the styrene-acrylic copolymer to the ink would inherently result in improvement of print gloss including on rough surfaces as presently claimed.

Attention is drawn to example 5, Table 2 that discloses aqueous gravure ink comprising 49% styrene-acrylic copolymer, plasticizer, and carbon black.

While there is no disclosure that the ink comprising 49% styrene-acrylic copolymer, plasticizer, and carbon black is an aqueous flexographic printing ink as presently claimed, applicants attention is drawn to MPEP 2111.02 which states that "if the body of a claim fully and intrinsically sets forth all the limitations of the claimed invention, and the preamble merely

states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction". Further, MPEP 2111.02 states that statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the purpose or intended use results in a structural difference between the claimed invention and the prior art. Only if such structural difference exists, does the recitation serve to limit the claim. If the prior art structure is capable of performing the intended use, then it meets the claim.

It is the examiner's position that the preamble does not state any distinct definition of any of the claimed invention's limitations and further that the purpose or intended use, i.e. aqueous flexographic printing ink, recited in the present claims does not result in a structural difference between the presently claimed invention and the prior art ink and further that the prior art structure which is an ink identical to that set forth in the present claims is capable of performing the recited purpose or intended use.

In light of the above, it is clear that Nigam et al. anticipate the present claims.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leenders et al. (U.S. 6,890,584), Sulzberg (U.S. 4,173,554), or Nigam et al. (U.S. 6,596,805) any of which in view of Sobieski (U.S. 2004/0071953)

The disclosures with respect to Leenders et al., Sulzberg, and Nigam et al. in paragraphs 2, 5, and 7 above are incorporated here by reference.

The difference between Leenders et al., Sulzberg, or Nigam et al. and the present claimed invention is the requirement in the claims of propyl lactate.

Sobieski et al., which is drawn to ink composition, disclose the use of alkyl lactate as adhesion promoter (paragraph 51). Although there is no disclosure that the lactate is a plasticizer, given that Sobieski et al. disclose alkyl lactate which clearly includes propyl lactate as presently claimed, it is clear that such lactate would intrinsically function as a plasticizer.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use alkyl lactate, including propyl lactate, in the ink of Leenders et al., Sulzberg, or Nigam et al. in order to effectively adhere ink to substrate, and thereby arrive at the claimed invention.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 874030 or Sano '298 (U.S. 6,043,297).

The disclosures with respect to EP 874030 and Sano '298 in paragraphs 3-4 above are incorporated here by reference.

The difference between EP 874030 or Sano '298 and the present claimed invention is the requirement in the claims of propyl lactate.

Sobieski et al., which is drawn to ink composition, disclose the use of alkyl lactate as adhesion promoter (paragraph 51). Although there is no disclosure that the lactate is a plasticizer, given that Sobieski et al. disclose alkyl lactate which clearly includes propyl lactate as presently claimed, it is clear that such lactate would intrinsically function as a plasticizer.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use alkyl lactate, including propyl lactate, in the ink of EP 874030 or Sano '298 in order to adhere ink to substrate, and thereby arrive at the claimed invention.

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12. Claims 1-2, 5, 7-9, 10, 13, and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sano et al. '601 (U.S. 2004/0127601).

Sano et al. '601 disclose aqueous flexographic ink comprising carbon black, styrene-acrylic emulsion, and 1-40% sorbitol. There is also disclosed method comprising adding the plasticizer, i.e. sorbitol, and the styrene-acrylic emulsion to the ink (paragraphs 107, 119, 123 (lines 7-8), 165, and 151 (lines 6 and 20-22)). Given that Sano et al. disclose ink comprising styrene-acrylic and plasticizer as presently claimed, it is clear that adding the plasticizer and the styrene-acrylic copolymer to the ink would intrinsically result in improvement of print gloss including on rough surfaces as presently claimed.

While Sano et al. '601 fails to exemplify the presently claimed ink nor can the claimed ink be "clearly envisaged" from Sano et al. as required to meet the standard of anticipation (cf. MPEP 2131.03), nevertheless, in light of the overlap between the claimed ink and the ink disclosed by Sano et al., absent a showing of criticality for the presently claimed ink, it is urged that it would have been within the bounds of routine experimentation, as well as the skill level of one of ordinary skill in the art, to use ink which is both disclosed by Sano et al. '601 and encompassed within the scope of the present claims and thereby arrive at the claimed invention.

13. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sano et al. '601 as applied to claims 1-2, 5, 7-9, 10, 13, and 15-18 above, and further in view of Sobieski (U.S. 2004/0071953)

The difference between Sano et al. '601 and the present claimed invention is the requirement in the claims of propyl lactate.

Sobieski et al., which is drawn to ink composition, disclose the use of alkyl lactate as adhesion promoter (paragraph 51). Although there is no disclosure that the lactate is a plasticizer, given that Sobieski et al. disclose alkyl lactate which clearly includes propyl lactate as presently claimed, it is clear that such lactate would intrinsically function as a plasticizer.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use alkyl lactate, including propyl lactate, in the ink of Sano et al. '601 in order to adhere ink to substrate, and thereby arrive at the claimed invention.

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Whyzmuzis (U.S. 5,714,526) and Clearly et al. (U.S. 5,616,364) each disclose flexographic ink comprising pigment, styrene-acrylic copolymer, and plasticizer.

Nakamura et al. (U.S. 6,114,411) and Zabiak et al. (U.S. 4,365,035) each disclose ink jet ink comprising pigment, styrene-acrylic, and sorbitol.

JP 62101672 discloses ink for writing instrument comprising water, sorbitol, styrene-acrylic copolymer, and pigment.


JP 10067963 discloses fluorescent composition comprising fluorescent pigment comprises dye and resin, sorbitol, and styrene-acrylic copolymer.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Callie E. Shosho
Primary Examiner
Art Unit 1714

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3/20/06